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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER TORRES, JOSEPH D				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/583,090

Applicant(s)

LOHR ET AL.

Examiner

Joseph D. Torres

Art Unit

2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 28-37 and 40-53 is/are pending in the application.
- 4a) Of the above claim(s) 51-53 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 28-37 and 40 is/are allowed.
- 6) ☒ Claim(s) 41-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Claims 51-53 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 10/25/2007.

This application contains claims 51-53 drawn to an invention nonelected with traverse in the reply filed on 10/25/2007. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Response to Arguments

Applicant's arguments filed 08/27/2008 have been fully considered but they are not persuasive.

The Applicant contends, "Thus, as imparted by the functional language, the transmitter of the mobile station defined by claim 41 necessarily has the structural limitations required to transmit using a HARQ retransmission protocol and to transmit synchronous retransmissions. These structural limitations distinguish the recited transmitter from transmitters that do not transmit using a HARQ retransmission protocol and synchronous retransmissions".

The Examiner disagrees and asserts a processor can be used to implement an algorithm in software for transmissions that do not transmit using a HARQ retransmission protocol and synchronous retransmissions. The same processor used to implement an algorithm in software for transmissions that do not transmit using a HARQ retransmission protocol and synchronous retransmissions can be used to implement an algorithm in software for transmissions that do transmit using a HARQ retransmission protocol and synchronous retransmissions without requiring any structural changes to the processor.

Furthermore, implementation of an algorithm for transmissions that do transmit using a HARQ retransmission protocol and synchronous retransmissions may be implemented in software, hardware or any combination of hardware and software, hence; the claim is indefinite as written since it is not clear exactly what structural limitation, if any, the functional language imparts.

The Applicant contends, "Thus, as imparted by the functional language, the processing unit of the mobile station defined by claim 41 necessarily has the structural limitations required to determine whether the transmission power required for synchronously transmitting a retransmission data packet and other uplink data is less than a maximum allowed power. This structural limitation distinguishes the processing unit from processing units that do not determine whether the transmission power required for synchronously transmitting a retransmission data packet and other uplink data is less than a maximum allowed power".

The Examiner disagrees and asserts a processor can be used to implement an algorithm in software for determining whether the transmission power required for synchronously transmitting a retransmission data packet and other uplink data is less than a maximum allowed power. The same processor used to implement an algorithm in software for transmissions that do not transmit by determining whether the transmission power required for synchronously transmitting a retransmission data packet and other uplink data is less than a maximum allowed power can be used to implement an algorithm in software for transmissions that do transmit by determining whether the transmission power required for synchronously transmitting a retransmission data packet and other uplink data is less than a maximum allowed power without requiring any structural changes to the processor.

Furthermore, implementation of an algorithm for transmissions that do transmit by determining whether the transmission power required for synchronously transmitting a retransmission data packet and other uplink data is less than a maximum allowed power may be implemented in software, hardware or any combination of hardware and software, hence; the claim is indefinite as written since it is not clear exactly what structural limitation, if any, the functional language imparts.

The Applicant contends, "Thus, just as the Office Action proposes that Venezia's claimed sleeve adapted to be fitted over a cable is functional language that structurally limits the claim because this language distinguishes the claimed sleeve from one that is not so fitted, so too does Applicants' functional language structurally limit the claimed

mobile terminal (see Office Action page 5, lines 1-6 of second paragraph). No relevant difference exists between the manner in which Venezia's functional language limits the structure of the claim and the manner by which Applicants' functional language limits claim 41".

The Examiner disagrees and asserts that a sleeve is a structural element to begin with and the function of adapting the sleeve to fit a particular cable clearly suggest a particular size and shape. In contrast, the functional language in claim 41 can be implemented in software and does not necessarily impart any structural limitation to a processor, for example, for implementing the functions. The Applicant has argued that the functional language imparts structural changes, but has not even recited what those structural changes are. If the Applicant was honest with himself and was to write down the structural changes to hardware that the Applicant envisions, the Applicant would readily see the problems with the current functional language and would be in a better position to amend the claims to recite such intended structure.

The Applicant contends, "As stated by the CCPA, "[w]e see nothing wrong in defining the structures of the components ... in terms of the interrelationship of the components, or the attributes they must possess" (see 152). Applicants' claim 41 defines the recited components of the transmitter, receiver, and processing unit in terms of the attributes they must possess, and the CCPA has found nothing wrong with defining components of a claimed apparatus in this way".

The Examiner asserts that that is correct. There is nothing wrong with using functional language per se. However the Examiner has not objected to and rejected the functional language simply because it is functional language. The Examiner has objected to the claims because of the ambiguity, which the functional language imparts. The functional language as written may be implemented in software, hardware or any combination of hardware and software, hence; the claim is indefinite as written.

The Applicant contends, "Claim 41 recites a transmitter, receiver, and processing unit that perform specific functions and, thus, necessarily incorporate the structural features required to accomplish the recited functions. The Office Action does not propose that the recited functions cannot be understood, as required to support an indefiniteness rejection and an indefiniteness-based objection; instead, the Office Action proposes that the claims are indefinite due to their broad scope (i.e., due to their failure to identify a specific structure for achieving the recited functions). Breadth of a claim is not to be equated with indefiniteness (see MPEP § 2173.04, lines 1- 2; and *In re Miller* 441 F.2d 689, 169 USPQ 597 (CCPA 1971)). If the scope of the subject matter embraced by the claims is clear, then the claims comply with 35 USC 112, second paragraph (see MPEP § 2173.04, second sentence). In the present circumstance, the Office Action neither proposes that the structural elements of the recited transmitter, receiver, and processing unit are unclear or that the functions performed by these elements are unclear. Instead, the Office Action proposes that the specific structure for achieving the recited functions must be claimed, by identifying the distinguishing structural elements of this specific

structure. However, identifying the specific species of structures within a genus of structures that may achieve the recited functions is a matter of claim breadth, not claim definiteness".

The Examiner disagrees and asserts that the only structural elements in the claim are a transmitter, receiver, and processing unit is not at issue. What is at issue is whether the functional language in the claim can be construed to impart additional structure or whether the functional language is ambiguous to a degree which makes the claims indefinite.

The functional language in claim 41 can be implemented in software and does not necessarily impart any structural limitation to a processor, for example, for implementing the functions. The functional language as written may be implemented in software, hardware or any combination of hardware and software, hence; the claim is indefinite as written.

The Applicant contends, "The Office Action proposes that claims 41-50 are indefinite because the functions recited in the claims can be implemented by programmable logic and software (see Office Action, sentence bridging pages 3 and 4). However, the assertion that claimed functions can be implemented by programmable logic and software is not a basis for an indefiniteness rejection or objection. As discussed in section I(B), above, the proposal that claimed functions can be implemented by programmable logic and software is drawn to claim breadth, not claim definiteness".

The Examiner asserts claims 41-50 are not objected to and rejected because they can be implemented by programmable logic and software. Claims 41-50 are objected to and rejected because is not clear at all what is used to implement the functional logic in claims 41-50. The functional language in claim 41 can be implemented in software and does not necessarily impart any structural limitation to a processor, for example, for implementing the functions. The functional language as written may be implemented in software, hardware or any combination of hardware and software, hence; the claim is indefinite as written.

The Applicant contends, "The Office Action proposes that 35 USC 112, second paragraph requires a claim to recite a limitation that distinguishes claimed subject matter from the prior art (see Office Action page 4, lines 1-3). However, 35 USC 112, second paragraph does not require a claim to distinguish over the prior art".

The Examiner disagrees and asserts 35 USC 112, second paragraph, is used to reject claims 41-50 because is not clear at all what is used to implement the functional logic in claims 41-50. The functional language in claim 41 can be implemented in software and does not necessarily impart any structural limitation to a processor, for example, for implementing the functions. The functional language as written may be implemented in software, hardware or any combination of hardware and software, hence; the claim is indefinite as written.

The Applicant contends, "However, as discussed in section I(A), claim 41 defines a mobile station having a transmitter that transmits a data packet using a HARQ retransmission protocol and synchronous retransmissions. The functional language relates to the transmission, and the relationship of a transmission to a transmitter would be clear to a skilled artisan; specifically, a skilled artisan would recognize that a transmitter transmits. Moreover, based upon Applicants' disclosure in the specification, a skilled artisan would understand how the functional limitation of transmitting a data packet using a HARQ retransmission protocol would further structurally limit the transmitter so as to achieve the functional limitation. Also, a skilled artisan would understand how the functional limitation of transmitting synchronous retransmissions would structurally limit the transmitter so as to achieve the functional limitation. A skilled artisan would similarly understand how the functional limitations related to the receiver and processing unit would limit the structures of these components".

The Examiner disagrees and asserts a skilled artisan would recognize the functional language as written in claims 41-50 may be implemented in software, hardware or any combination of hardware and software and a skilled artisan would have the same problem that the Examiner has in determining the intended scope of the claim. The Applicant's arguments make no attempt to suggest what structural limitations the Applicant intends and the fact that the Applicant is comfortable with software or programmable logic demonstrates that the Applicant is intent on retaining indefinite language so that the Applicant can claim a mobile station having a transmitter, receiver, and processing unit. Clearly the inventor did not invent a mobile station having a

transmitter, receiver, and processing unit since every cell phone since initial implementation of cell phones is such a device.

The Applicant contends, "Accordingly, the Office Action's acknowledgement that a person could implement the claimed subject matter belies the assertion that the recited functional language does not clearly define the structural limitations of the claimed subject matter. The indefiniteness objections and rejections applied to claims 42-50 are similarly unfounded".

The Examiner disagrees and asserts a skilled artisan would recognize the functional language as written in claims 41-50 may be implemented in software, hardware or any combination of hardware and software and as such the claims as written would remain indefinite to a skilled artisan since the skilled artisan would not know whether the claims entailed just a mobile station having a transmitter, receiver, and processing unit or whether additional structural limitations were included. A skilled artisan would agree with the Examiners assertion that claims 41-50 are indefinite.

The Applicant contends, "However, in *Hewlett-Packard*, the Federal Circuit was stating the principle that a claimed device could distinguish over a prior art device that performs the same operation if the two devices have different structures (see *Hewlett-Packard Co. v. Bausch & Lomb Inc.* 1528). The Office Action has taken the Federal Circuit's statement -- apparatus claims cover what a device is, rather than what a device does - out of the 35 USC 102/103 context in which it was made and misconstrued the

statement within the context of an indefiniteness rejection. Whether claimed subject matter performs the same operation or has the same structure as a prior art device has no bearing on the issue of the claim's definiteness under 35 USC 112".

The Examiner disagrees and asserts *Hewlett-Packard Co. v. Bausch & Lomb Inc.* 1528 and *In re Venezia*, 530 F.2d 956, 189 USPQ 149 (CCPA 1976) are provided as clear and definite evidence as to when functional limitations in a claim can be construed to impart a structural limitation to a claim. The teachings in *Hewlett-Packard Co. v. Bausch & Lomb Inc.* 1528 and *In re Venezia*, 530 F.2d 956, 189 USPQ 149 (CCPA 1976) clearly teach that the functional language in claims 41-50 do not impart structural limitations per se. The Basis of the 35 USC 112, 2nd paragraph rejections is the statement "The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention". Claims 41-50 do not distinctly claiming the subject matter which the applicant regards as his invention since functional language as written in claims 41-50 may be implemented in software, hardware or any combination of hardware and software, hence; the claim is indefinite as written.

The Applicant contends, "The Office Action cites *Venezia* in support of its indefiniteness objections and rejections without identifying how the facts within *Venezia* relate to Applicants claimed subject matter so as to support the indefiniteness objections and rejections (see Office Action page 3, last paragraph). In *Venezia*, the CCPA differentiated functional language directed toward limiting the structure of an apparatus

from functional language that identified a future use of a claimed apparatus (see Venezia 151-152). The Office Action does not propose that the functional language in Applicants' claims is directed toward a future use of the claimed subject matter. Thus, in the context of Venezia, the only other type of functional language is that which limits the structure of a claimed apparatus, which the Office Action seems to tacitly acknowledge (by the citation of Venezia and the failure to propose that Applicants' functional language is directed toward a future use of the claimed subject matter) is the type of functional language within Applicants' claims. Applicants respectfully submit that the Office Action bases the indefiniteness objections and rejections on platitudes rather than findings of fact as to how Applicants' functional language differs from that within Venezia's claims so as to support an inference that a different outcome is warranted for Applicants' claims than occurred in relation to the indefiniteness rejections applied to Venezia's claims".

The Examiner disagrees and asserts *Hewlett-Packard Co. v. Bausch & Lomb Inc.* 1528 and *In re Venezia*, 530 F.2d 956, 189 USPQ 149 (CCPA 1976) are provided as clear and definite evidence as to when functional limitations in a claim can be construed to impart a structural limitation to a claim. The teachings in *Hewlett-Packard Co. v. Bausch & Lomb Inc.* 1528 and *In re Venezia*, 530 F.2d 956, 189 USPQ 149 (CCPA 1976) clearly teach that the functional language in claims 41-50 do not impart structural limitations per se. The Basis of the 35 USC 112, 2nd paragraph rejections is the statement "The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his

invention". Claims 41-50 do not distinctly claiming the subject matter which the applicant regards as his invention since functional language as written in claims 41-50 may be implemented in software, hardware or any combination of hardware and software, hence; the claim is indefinite as written.

The Examiner asserts that the Applicant has made no attempt to suggest what structural limitations the Applicant intends and the fact that the Applicant is comfortable with software or programmable logic demonstrates that the Applicant is intent on retaining indefinite language so that the Applicant can claim a mobile station having a transmitter, receiver, and processing unit. Clearly the inventor did not invent a mobile station having a transmitter, receiver, and processing unit since every cell phone since initial implementation of cell phones is such a device.

37 CFR § 1.56 requires duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration. The Examiner asserts that the Applicant arguments with respect to claims 41-50 are non-responsive in that they suggest that the functional language imparts some structural change to claims 41-50, but refuse to say what that change is. If the Applicant continues to insist, the Applicant needs to explain in clear terms exactly what structural change the functional language in claims 41-50 , the functional language imparts.

The Applicant contends, "The Office Action cites Wolf only for disclosing the limitations recited in claim 41 of a transmitter, a receiver, and a processing unit (see Office Action

page 10, lines 1-3). The Office Action tacitly acknowledges that Wolf does not disclose the structural limitations defined by the functional language within claim 41 by its proposal that the functional language does not impart structural limitations that must be found within the prior art to support an anticipation rejection (see page 10, second paragraph, through page 11, third paragraph). For the reasons discussed in section I, above, the functional language of claims 41-50 does impart structural limitations on the claimed mobile terminal. Accordingly, the Office Action has not established a *prima facie* showing that Wolf anticipates the subject matter of claims 41-50. For example, Applicants claim 41 defines a mobile station having: (1) a transmitter that transmits a data packet using a HARQ retransmission protocol and synchronous retransmissions, (2) a receiver that receives a HARQ feedback message, and (3) a processing unit that determines whether the transmission power required for synchronously transmitting a retransmission data packet and other uplink data is less than a maximum allowed power. The Office Action does not propose that Wolf discloses any of these structural features".

The Examiner asserts page 14 of the Applicant's response (C. Programmable Logic Implementation) admits programmable logic and software implementations of functional language.

The Examiner asserts while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function, because apparatus claims cover what a

device is, not what a device does (Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990)).

That is, **the boundaries of the subject matter** for an apparatus are only made clear in terms of structure rather than function and unless the functional and/or descriptive material are explicitly written in a fashion that imparts some structural limitation on the apparatus, a functional limitation cannot be regarded as distinguishing over the Prior Art.

Thus, if a prior art structure is capable of performing the intended use as recited in the preamble, or elsewhere in a claim, then it meets the claim.

Claim Objections

Claims 41-50 are objected to because of the following informalities: The Examiner asserts that the Applicant has made no attempt to suggest what structural limitations the Applicant intends and the fact that the Applicant is comfortable with software or programmable logic demonstrates that the Applicant is intent on retaining indefinite language so that the Applicant can claim a mobile station having a transmitter, receiver, and processing unit. Clearly the inventor did not invent a mobile station having a transmitter, receiver, and processing unit since every cell phone since initial implementation of cell phones is such a device.

37 CFR § 1.56 requires duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration. The Examiner asserts that the Applicant arguments with respect to claims 41-50 are non-responsive in

that they suggest that the functional language imparts some structural change to claims 41-50, but refuse to say what that change is. If the Applicant continues to insist, the Applicant needs to explain in clear terms exactly what structural change the functional language in claims 41-50, the functional language imparts.

Appropriate correction is required.

Claims 42-50 objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The Examiner asserts while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function, because apparatus claims cover what a device is, not what a device does (*Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990)).

That is, the boundaries of the subject matter for an apparatus are only made clear in terms of structure rather than function and unless the functional and/or descriptive material are explicitly written in a fashion that imparts some structural limitation on the apparatus, a functional limitation cannot be regarded as distinguishing over the Prior Art.

Claim 42-46 and 50 fail to recite any structural element and/or structural cooperative relationships to the existing structural elements in the claim 41, i.e.,

"transmitter", "receiver" and "processing unit", for implementing the functional limitations in claims 42-46 and 50.

Claims 47-49 recite a functional elements "MAC-d entity" and "MAC-d entity" from a 3GPP modified version Open Systems Interconnection (OSI) Basic Reference Model. Claim 47-49 fail to recite any structural element and/or structural cooperative relationships to the existing structural elements in the claim 41, i.e., "transmitter", "receiver" and "processing unit", for implementing the functional limitations in claims 47-49.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 41-50 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. Evidence that claims 41-50 fail(s) to correspond in scope with that which applicant(s) regard as the invention can be found in the reply filed 08/27/2008. In that paper, applicant has stated "Thus, as imparted by the functional language, the transmitter of the mobile station defined by claim 41 necessarily has the structural limitations required to transmit using a HARQ retransmission protocol and to transmit synchronous retransmissions. These structural limitations distinguish the recited transmitter from transmitters that do not transmit using a HARQ retransmission protocol and synchronous retransmissions", and this statement indicates that the invention is different from what is defined in the claim(s)

because the Applicant states that the functional limitations are intended to impart structural limitations but nowhere does claim 41 recite or suggest such structural limitations since a processor can be used to implement an algorithm in software for transmissions that do not transmit using a HARQ retransmission protocol and synchronous retransmissions. The same processor used to implement an algorithm in software for transmissions that do not transmit using a HARQ retransmission protocol and synchronous retransmissions can be used to implement an algorithm in software for transmissions that do transmit using a HARQ retransmission protocol and synchronous retransmissions without requiring any structural changes to the processor.

Claims 41-50 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. Evidence that claims 41-50 fail(s) to correspond in scope with that which applicant(s) regard as the invention can be found in the reply filed 08/27/2008. In that paper, applicant has stated "Thus, as imparted by the functional language, the processing unit of the mobile station defined by claim 41 necessarily has the structural limitations required to determine whether the transmission power required for synchronously transmitting a retransmission data packet and other uplink data is less than a maximum allowed power. This structural limitation distinguishes the processing unit from processing units that do not determine whether the transmission power required for synchronously transmitting a retransmission data packet and other uplink data is less than a maximum allowed power", and this statement indicates that the invention is different from what is

defined in the claim(s) because the Applicant states that the functional limitations are intended to impart structural limitations but nowhere does claim 41 recite or suggest such structural limitations since a processor can be used to implement an algorithm in software for determining whether the transmission power required for synchronously transmitting a retransmission data packet and other uplink data is less than a maximum allowed power. The same processor used to implement an algorithm in software for transmissions that do not transmit by determining whether the transmission power required for synchronously transmitting a retransmission data packet and other uplink data is less than a maximum allowed power can be used to implement an algorithm in software for transmissions that do transmit by determining whether the transmission power required for synchronously transmitting a retransmission data packet and other uplink data is less than a maximum allowed power without requiring any structural changes to the processor.

Claims 41-50 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

Claim 1 recites the following functions, "operable to transmit a data packet to the base station via the uplink data channel using a hybrid automatic repeat request (HARQ) retransmission protocol providing soft combining of data packets and synchronous retransmissions", "operable to receive a HARQ feedback message from the base

station, wherein the feedback message indicates that the data packet has not been successfully decoded by the base station", "operable to determine whether the transmission power required for synchronously transmitting a retransmission data packet~ for the unsuccessfully decoded data packet, at a predetermined point in time after having received the feedback message and for transmitting other uplink data within the same transmission time interval is lower than a maximum allowed transmission power the mobile station is allowed to utilize for transmitting uplink data, wherein the other uplink data is prioritized over the retransmission data packet" and "wherein the transmitter of the mobile terminal is operable to synchronously transmit the retransmission data packet at the predetermined point in time after having received the feedback message and to transmit the other uplink data to the base station using the maximum allowed transmission power, if the required transmission power is larger than the maximum allowed transmission power", but fails to recite any structural element and/or structural cooperative relationships to the existing structural elements in the claim, i.e., "transmitter", "receiver" and "processing unit", for implementing the functional limitations.

The Examiner asserts while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function, because apparatus claims cover what a device is, not what a device does (Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990)).

That is, **the boundaries of the subject matter** for an apparatus are only made clear in terms of structure rather than function and unless the functional and/or descriptive material are explicitly written in a fashion that imparts some structural limitation on the apparatus, a functional limitation cannot be regarded as distinguishing over the Prior Art.

Furthermore; in *In re Venezia*, 530 F.2d 956, 189 USPQ 149 (CCPA 1976), it is clearly pointed out that functional limitations are only excluded from considerations under 35 U.S.C. 112, second paragraph, when a functional limitation imparts some structural limitation on an apparatus (i.e. sleeves "adapted to be fitted" Note: a sleeve "adapted to be fitted" requires a specific physical alteration to a sleeve since any sleeve that is not "adapted to be fitted" is necessarily structurally different from what is being claimed). Since the functional matter recited in the Applicant's claims can be implemented in software or can be implemented without requiring structural changes to existing circuitry that does not implement such a function such as programmable logic, the functional matter in the Applicant's claims does not conform to the requirement that a limitation for an apparatus distinguish from the Prior Art in terms of structure rather than function. The functional matter in the Applicant's claims instead raises questions as to the structural connection of the functional matter to structural elements in the claim to the degree that it is not even clear, if the functional matter as recited imparts any structural connection to any structural element in the claim. As such, the functional matter as recited in claims 41-50, is indefinite and fails to comply with 35 U.S.C. 112, second paragraph.

The Examiner asserts that the only structural elements in the claim are a transmitter, receiver, and processing unit is not at issue. What is at issue is whether the functional language in the claim can be construed to impart additional structure or whether the functional language is ambiguous to a degree which makes the claims indefinite.

The functional language in claim 41 can be implemented in software and does not necessarily impart any structural limitation to a processor, for example, for implementing the functions. The functional language as written may be implemented in software, hardware or any combination of hardware and software, hence; the claim is indefinite as written.

Furthermore, a skilled artisan would recognize the functional language as written in claims 41-50 may be implemented in software, hardware or any combination of hardware and software and a skilled artisan would have the same problem that the Examiner has in determining the intended scope of the claim. The Applicant's arguments make no attempt to suggest what structural limitations the Applicant intends and the fact that the Applicant is comfortable with software or programmable logic demonstrates that the Applicant is intent on retaining indefinite language so that the Applicant can claim a mobile station having a transmitter, receiver, and processing unit. Clearly the inventor did not invent a mobile station having a transmitter, receiver, and processing unit since every cell phone since initial implementation of cell phones is such a device.

Claim 42-46 and 50 fail to recite any structural element and/or structural cooperative relationships to the existing structural elements in the claim 41, i.e., “transmitter”, “receiver” and “processing unit”, for implementing the functional limitations in claims 42-46 and 50.

Claims 47-49 recite a functional elements “MAC-d entity” and “MAC-d entity” from a 3GPP modified version Open Systems Interconnection (OSI) Basic Reference Model. Claim 47-49 fail to recite any structural element and/or structural cooperative relationships to the existing structural elements in the claim 41, i.e., “transmitter”, “receiver” and “processing unit”, for implementing the functional limitations in claims 47-49.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 41-50 are rejected under 35 U.S.C. 102(b) as being anticipated by Wolf; Jack K. (US 5983383 A).

35 U.S.C. 102(b) rejection of claims 41-50.

Figure 5 in Wolf teaches a "transmitter" 116, "receiver" 104 for a mobile unit and claim 8 in Wolf teaches "processing unit" fully operable for implementing programmable functions.

Claim 1 recites the following functions, "operable to transmit a data packet to the base station via the uplink data channel using a hybrid automatic repeat request (HARQ) retransmission protocol providing soft combining of data packets and synchronous retransmissions", "operable to receive a HARQ feedback message from the base station, wherein the feedback message indicates that the data packet has not been successfully decoded by the base station", "operable to determine whether the transmission power required for synchronously transmitting a retransmission data packet~ for the unsuccessfully decoded data packet, at a predetermined point in time after having received the feedback message and for transmitting other uplink data within the same transmission time interval is lower than a maximum allowed transmission power the mobile station is allowed to utilize for transmitting uplink data, wherein the other uplink data is prioritized over the retransmission data packet" and "wherein the transmitter of the mobile terminal is operable to synchronously transmit the retransmission data packet at the predetermined point in time after having received the feedback message and to transmit the other uplink data to the base station using the maximum allowed transmission power, if the required transmission power is larger than the maximum allowed transmission power", but fails to recite any structural element and/or structural cooperative relationships to the existing structural elements in the

claim, i.e., "transmitter", "receiver" and "processing unit", for implementing the functional limitations.

The Examiner asserts while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function, because apparatus claims cover what a device is, not what a device does (Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990)).

That is, **the boundaries of the subject matter** for an apparatus are only made clear in terms of structure rather than function and unless the functional and/or descriptive material are explicitly written in a fashion that imparts some structural limitation on the apparatus, a functional limitation cannot be regarded as distinguishing over the Prior Art.

Allowable Subject Matter

Claims 28-37 and 40 are allowed.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Torres whose telephone number is (571) 272-3829. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques can be reached on (571) 272-6962. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Art Unit 2112

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